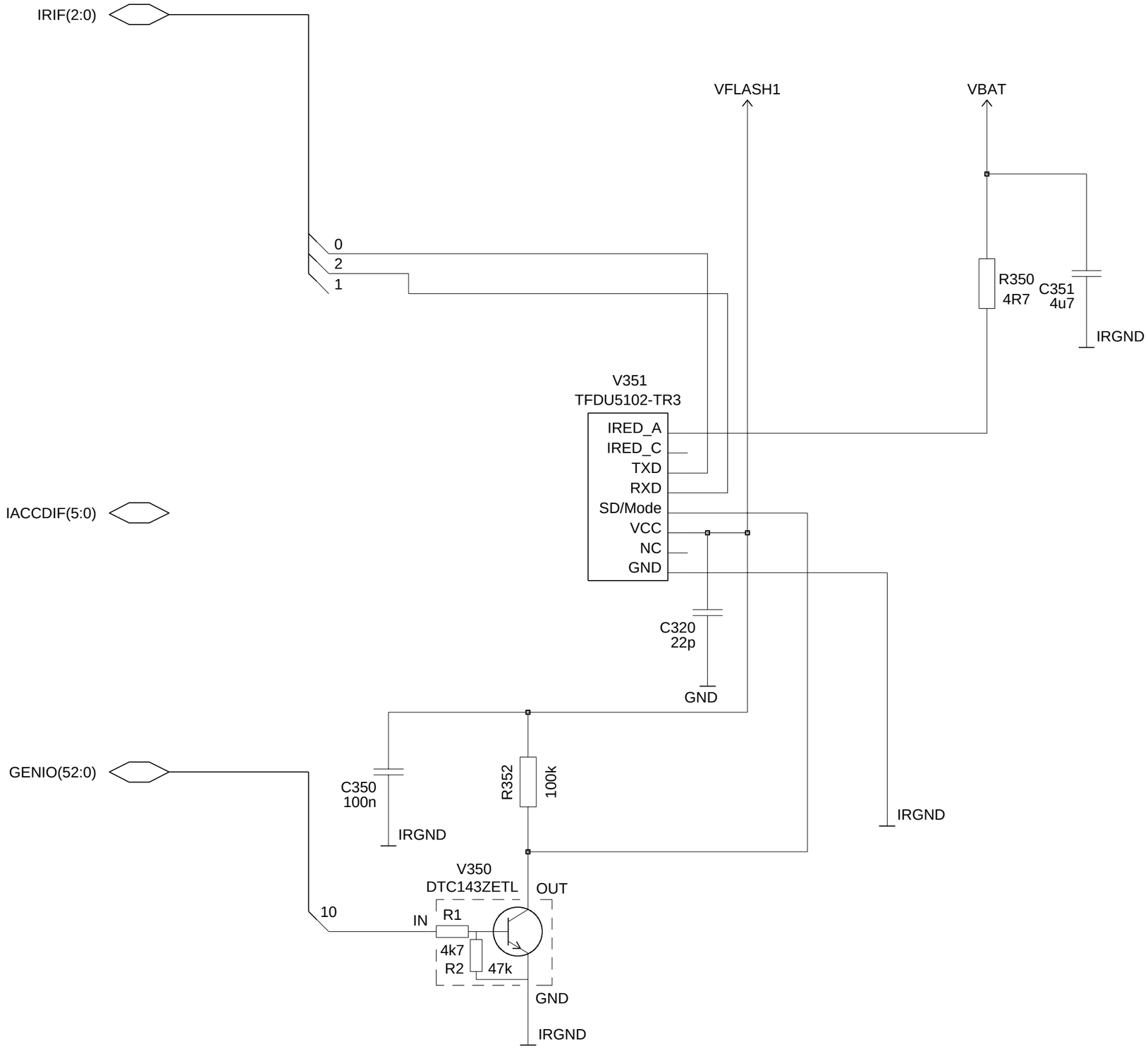
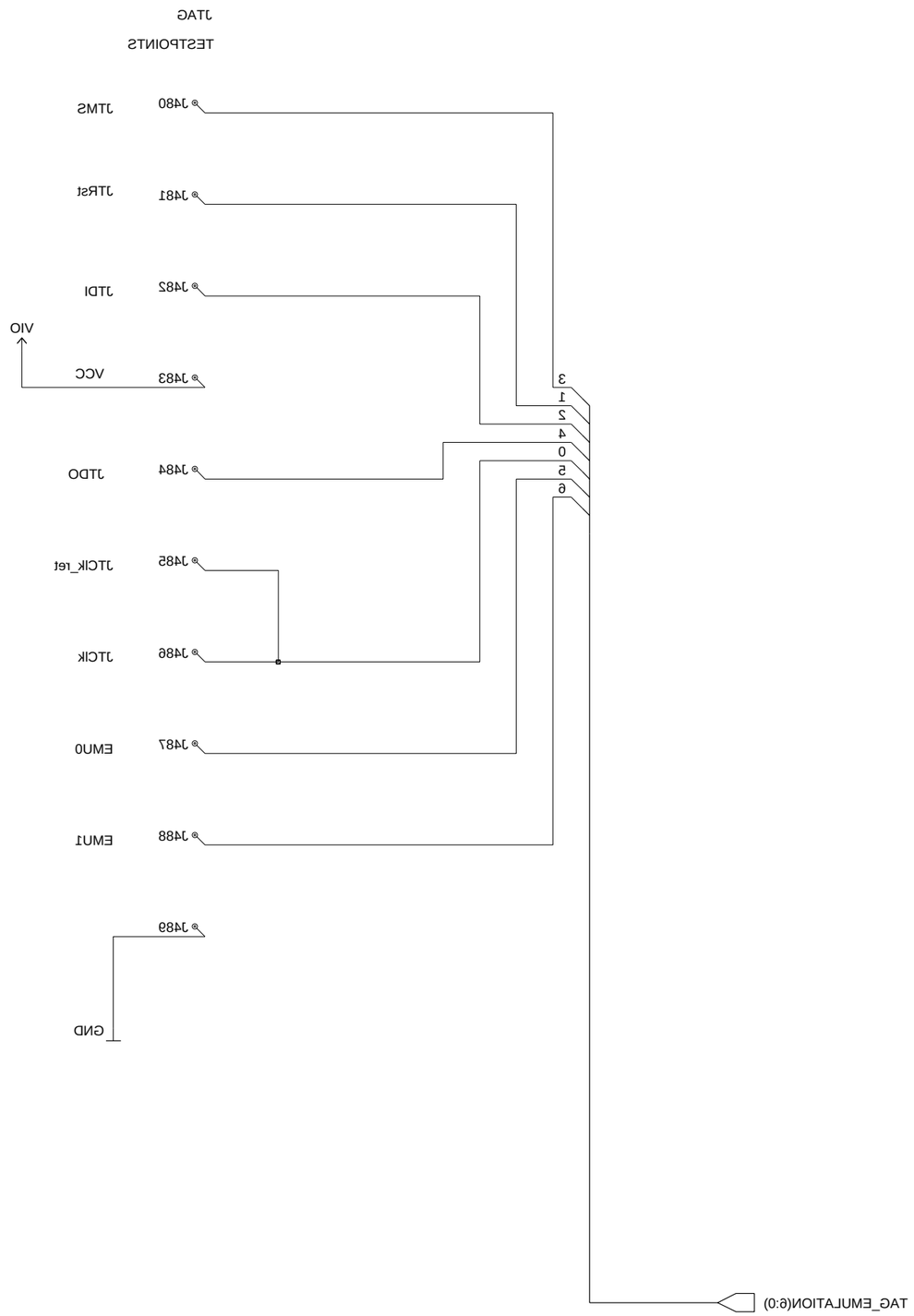
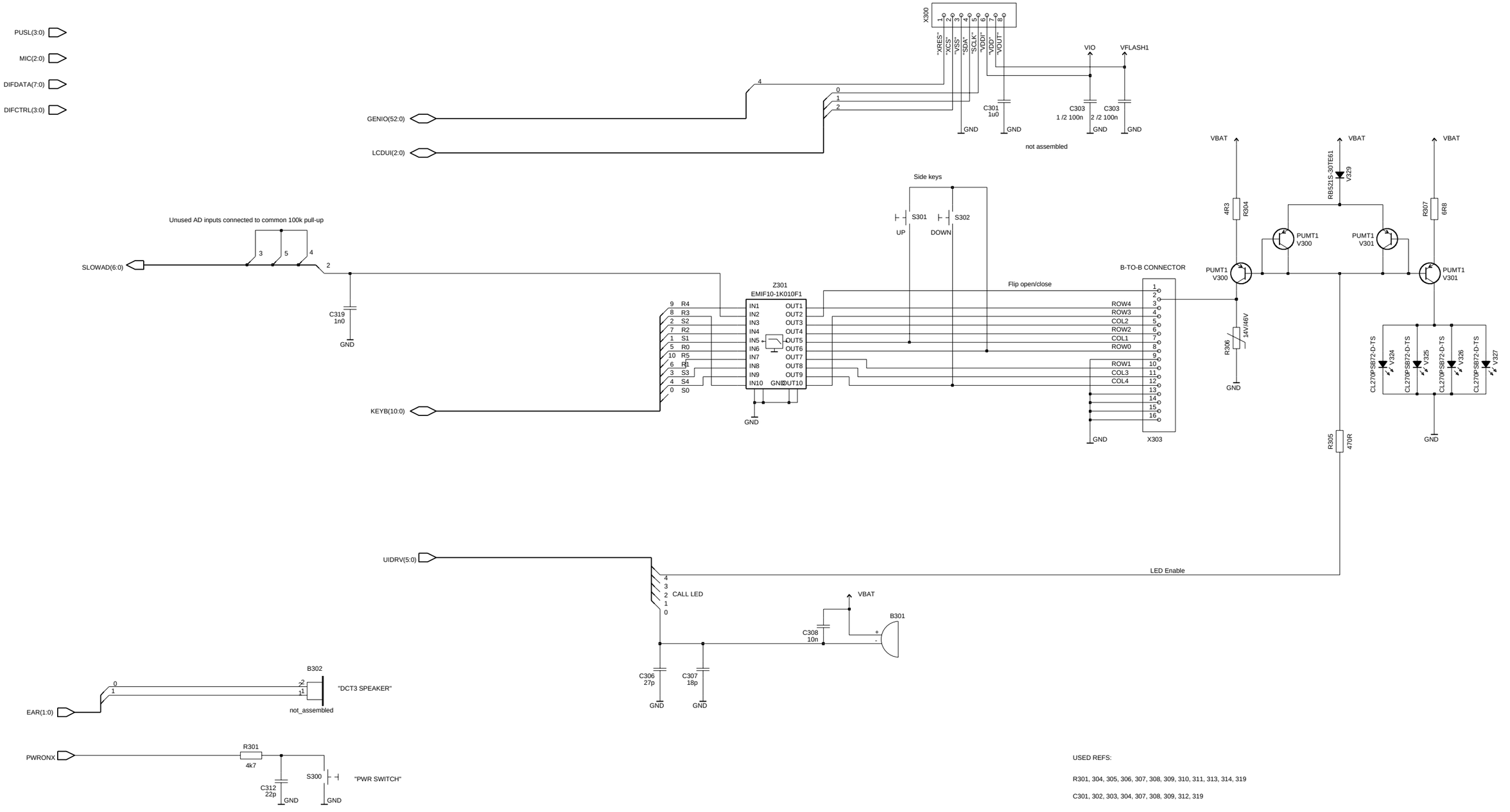
IRDA


IRIF(2:0)
0
2
1
VFLASH1
VBAT
R350
4R7
C351
4u7
IRGND
V351
TFDU5102-TR3
IRED_A
IRED_C
TXD
RXD
SD/Mode
VCC
NC
GND
IACCDIF(5:0)
C320
22p
GND
GENIO(52:0)
C350
100n
IRGND
R352
100k
IRGND
V350
DTC143ZETL
OUT
10
IN
R1
4k7
R2
47k
GND
IRGND

JTAG


JTAG
TESTPOINTS
J1480
JTMS
J1481
JTRst
J1482
JTDI
VIO
J1483
VCC
J1484
JTDO
J1485
JTCLK_ret
J1486
JTCLK
J1487
EMU0
J1488
EMU1
J1489
GND
3
1
2
4
0
5
6
TAG_EMULATION(6:0)

Keyboard Interface

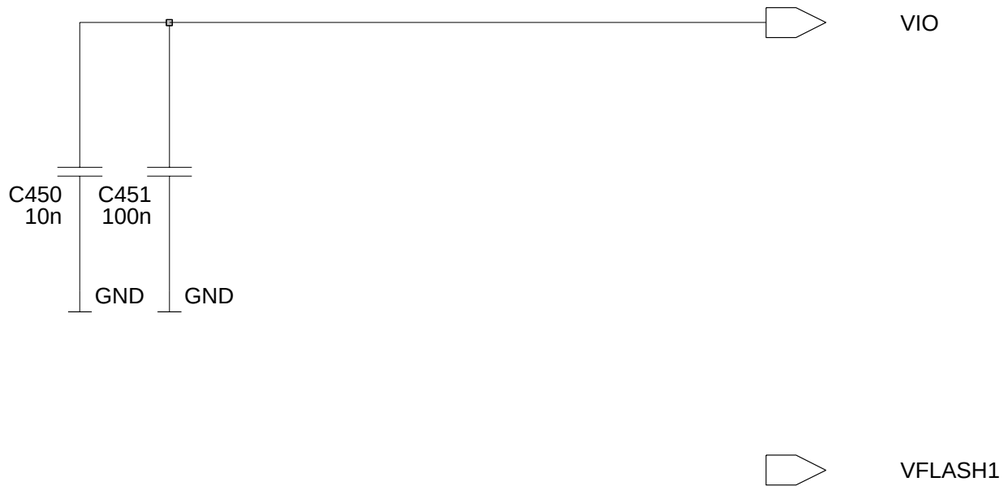


USED REFS:

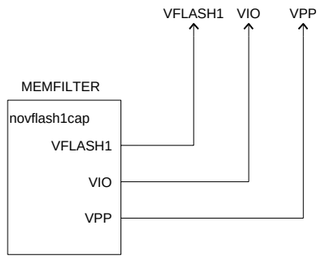
R301, 304, 305, 306, 307, 308, 309, 310, 311, 313, 314, 319

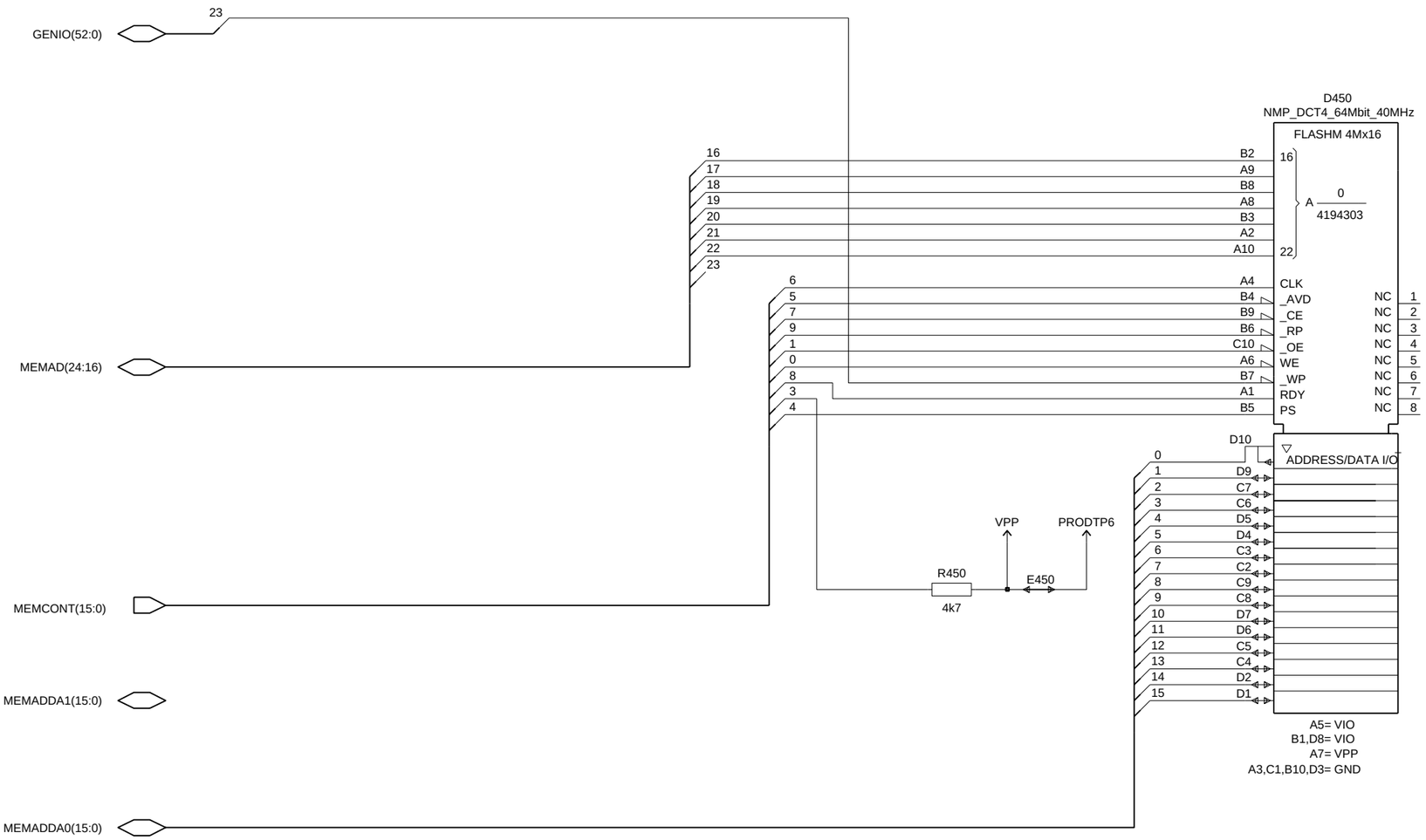
C301, 302, 303, 304, 307, 308, 309, 312, 319

Memory Filter

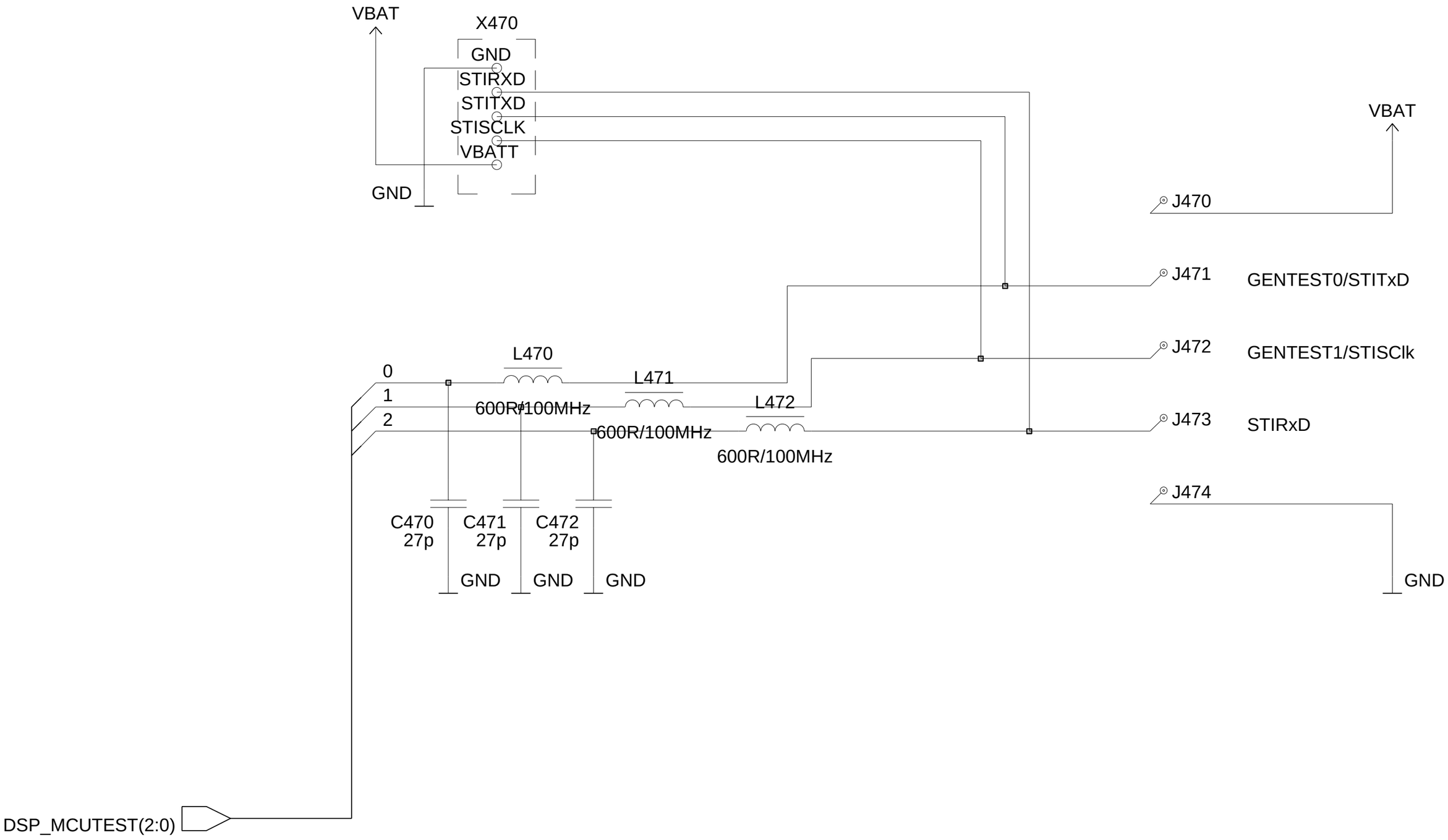


Flash Memory

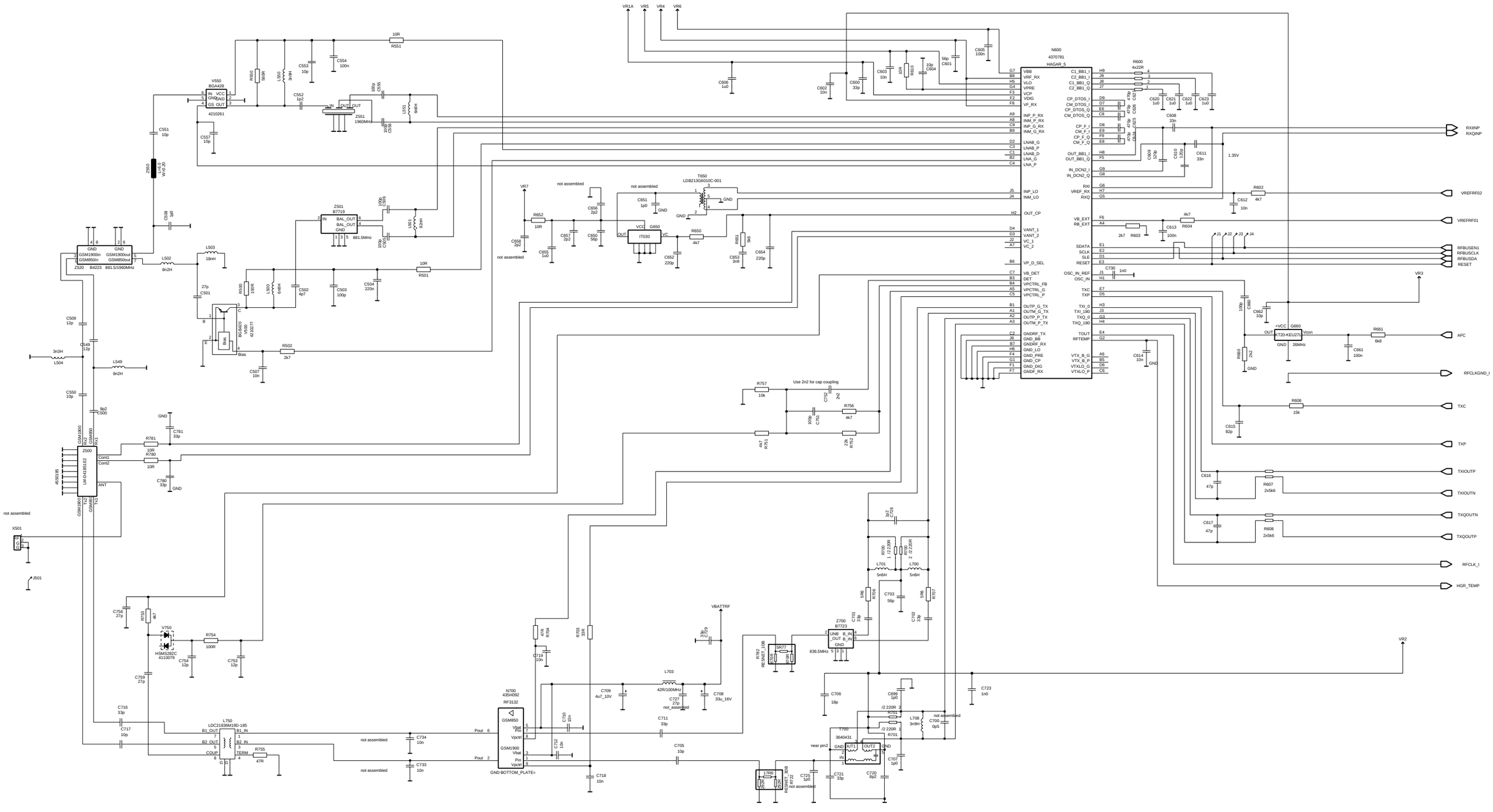




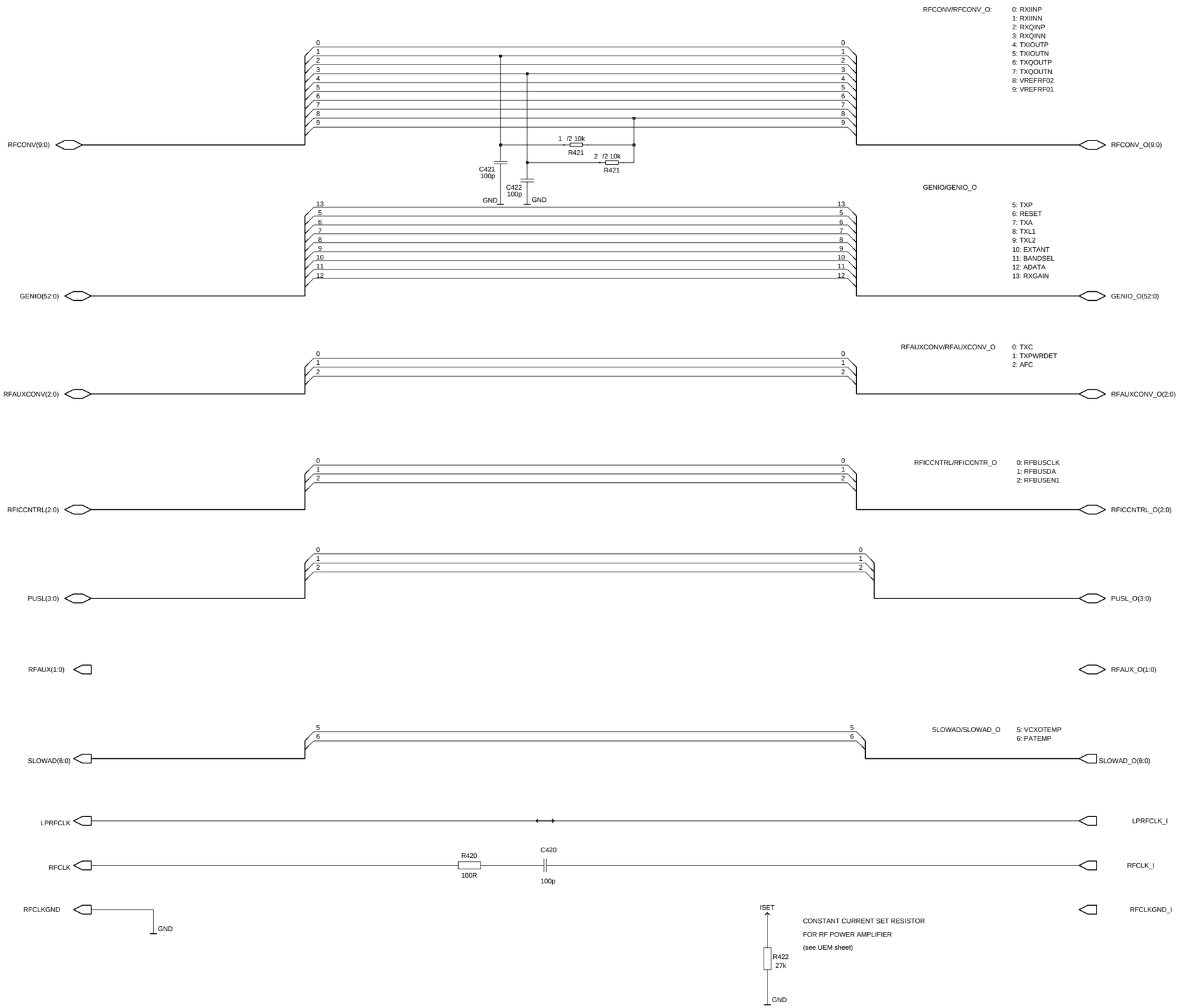
Ostrich


VBAT
X470
GND
STIRXD
STITXD
STISCLK
VBATT
GND
VBAT
J470
J471
GENTEST0/STITxD
J472
GENTEST1/STISClk
J473
STIRxD
J474
GND
L470
L471
L472
0
1
2
600R/100MHz
600R/100MHz
600R/100MHz
C470
27p
C471
27p
C472
27p
GND
GND
GND
DSP_MCUTEST(2:0)

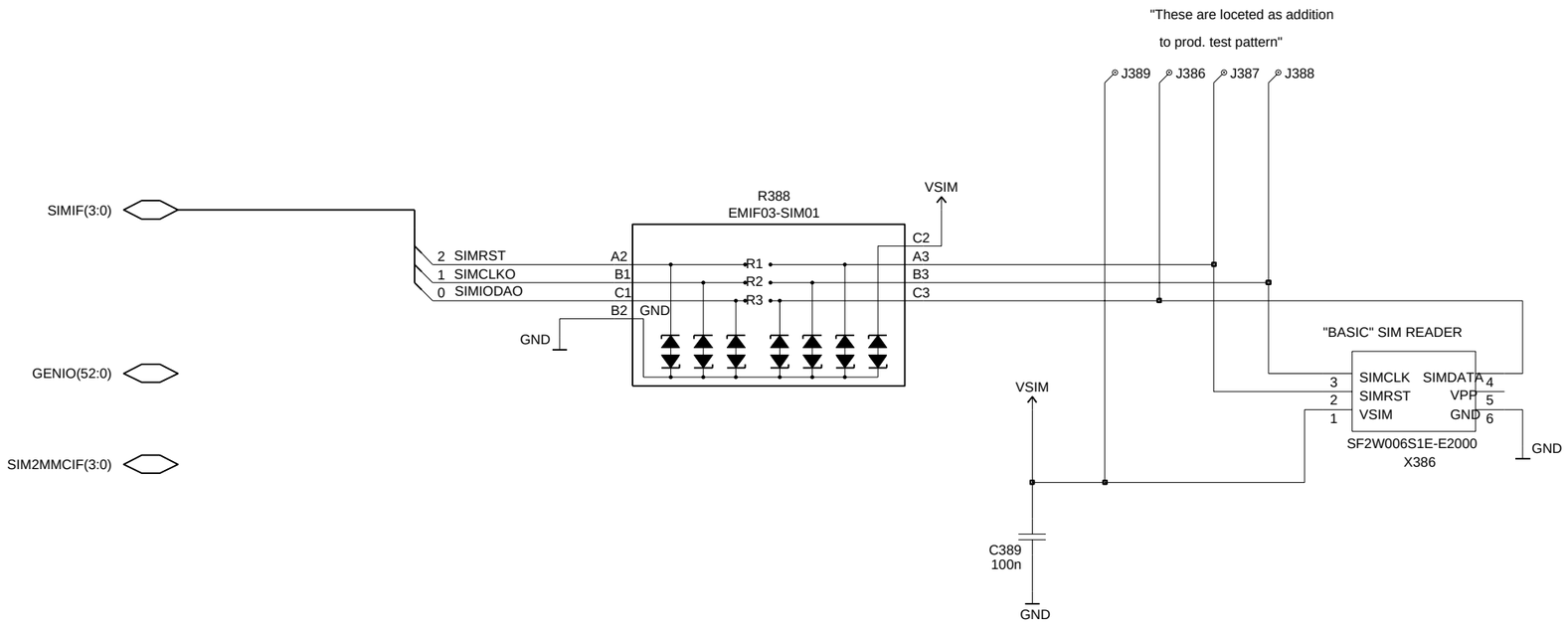
RF


N600
4370781
HAGAR_5
R600
4x22R
V550
BGA428
4210261
Z551
1960MHz
Z501
B7719
BB1.5MHz
Z520
B4223
881.5/1960MHz
T650
LDB213G6010C-001
G650
IT030
N700
435H092
RF3132
GSM850
GSM1900
GND_BOTTOM_PLATE=
L750
LDC21836M19D-185
Z500
LM-G418S1E2
Use 2n2 for cap coupling
not assembled
Z700
B7723
836.5MHz
Z600
3640431
L703
42R/100MHz
L701
5n6H
L700
5n6H
VBATTRF
VR1A
VR5
VR4
VR6
VR7
VR2
VR3
RXINP
RXQINP
VREFRF02
VREFRF01
RFBUSEN1
RFBUSCLK
RFBUSDA
RESET
AFC
RFCLKGND_I
TXC
TXP
TXIOUTP
TXIOUTN
TXQOUTN
TXQOUTP
RFCLK_I
HGR_TEMP
1.35V

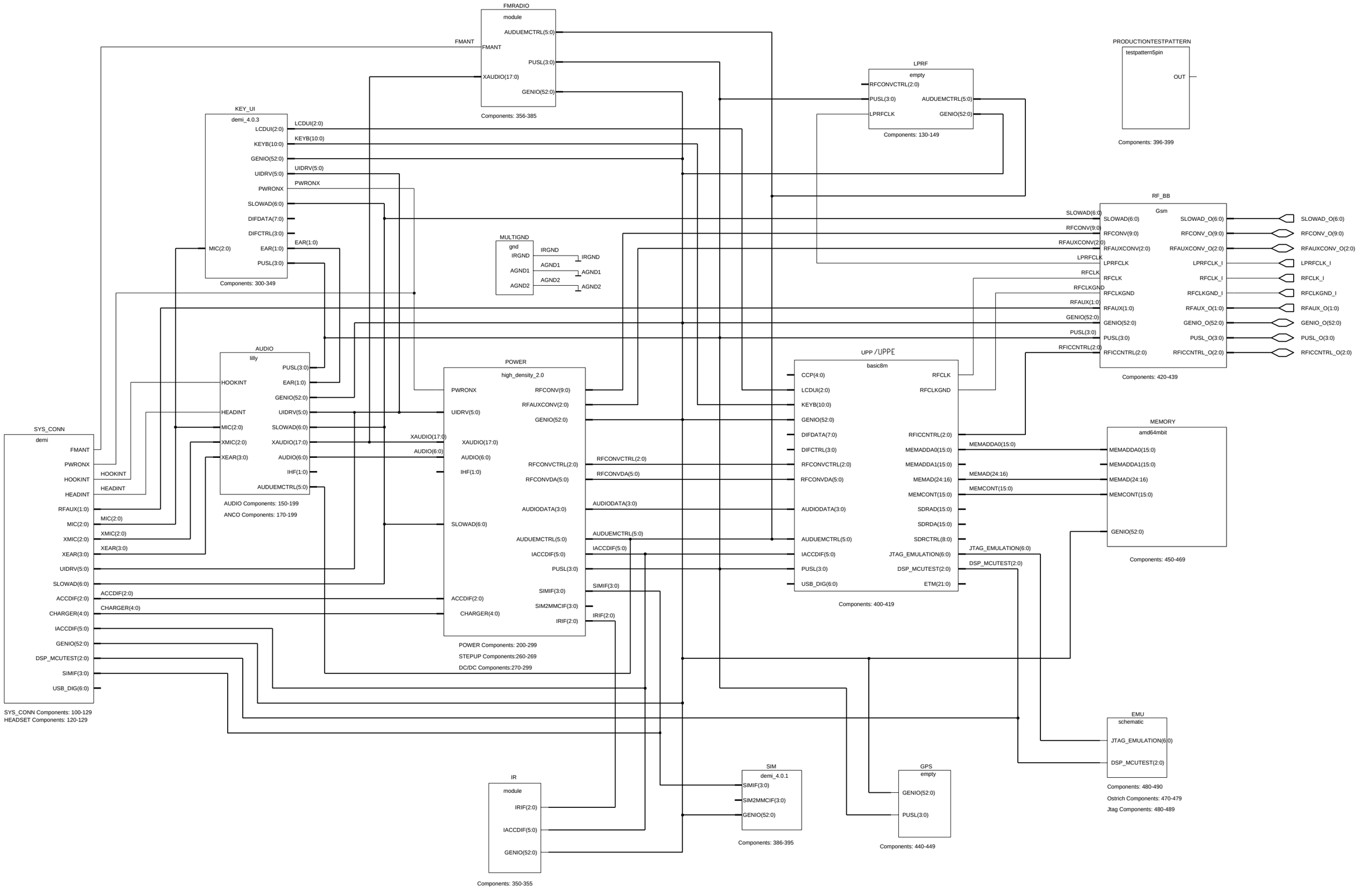
RF & BB


RFCONV/RFCONV_O:
0: RXIINP
1: RXIINN
2: RXQINP
3: RXQINN
4: TXIOUTP
5: TXIOUTN
6: TXQOUTP
7: TXQOUTN
8: VREFRF02
9: VREFRF01
RFCONV(9:0)
RFCONV_O(9:0)
1 /2 10k
R421
2 /2 10k
R421
C421
100p
C422
100p
GND
GND
GENIO/GENIO_O
5: TXP
6: RESET
7: TXA
8: TXL1
9: TXL2
10: EXTANT
11: BANDSEL
12: ADATA
13: RXGAIN
GENIO(52:0)
GENIO_O(52:0)
RFAUXCONV/RFAUXCONV_O
0: TXC
1: TXPWRDET
2: AFC
RFAUXCONV(2:0)
RFAUXCONV_O(2:0)
RFICCNTRL/RFICCNTR_O
0: RFBUSCLK
1: RFBUSDA
2: RFBUSEN1
RFICCNTRL(2:0)
RFICCNTRL_O(2:0)
PUSL(3:0)
PUSL_O(3:0)
RFAUX(1:0)
RFAUX_O(1:0)
SLOWAD/SLOWAD_O
5: VCXOTEMP
6: PATEMP
SLOWAD(6:0)
SLOWAD_O(6:0)
LPRFCLK
LPRFCLK_I
RFCLK
R420
100R
C420
100p
RFCLK_I
RFCLKGND
GND
RFCLKGND_I
ISET
R422
27k
GND
CONSTANT CURRENT SET RESISTOR
FOR RF POWER AMPLIFIER
(see UEM sheet)

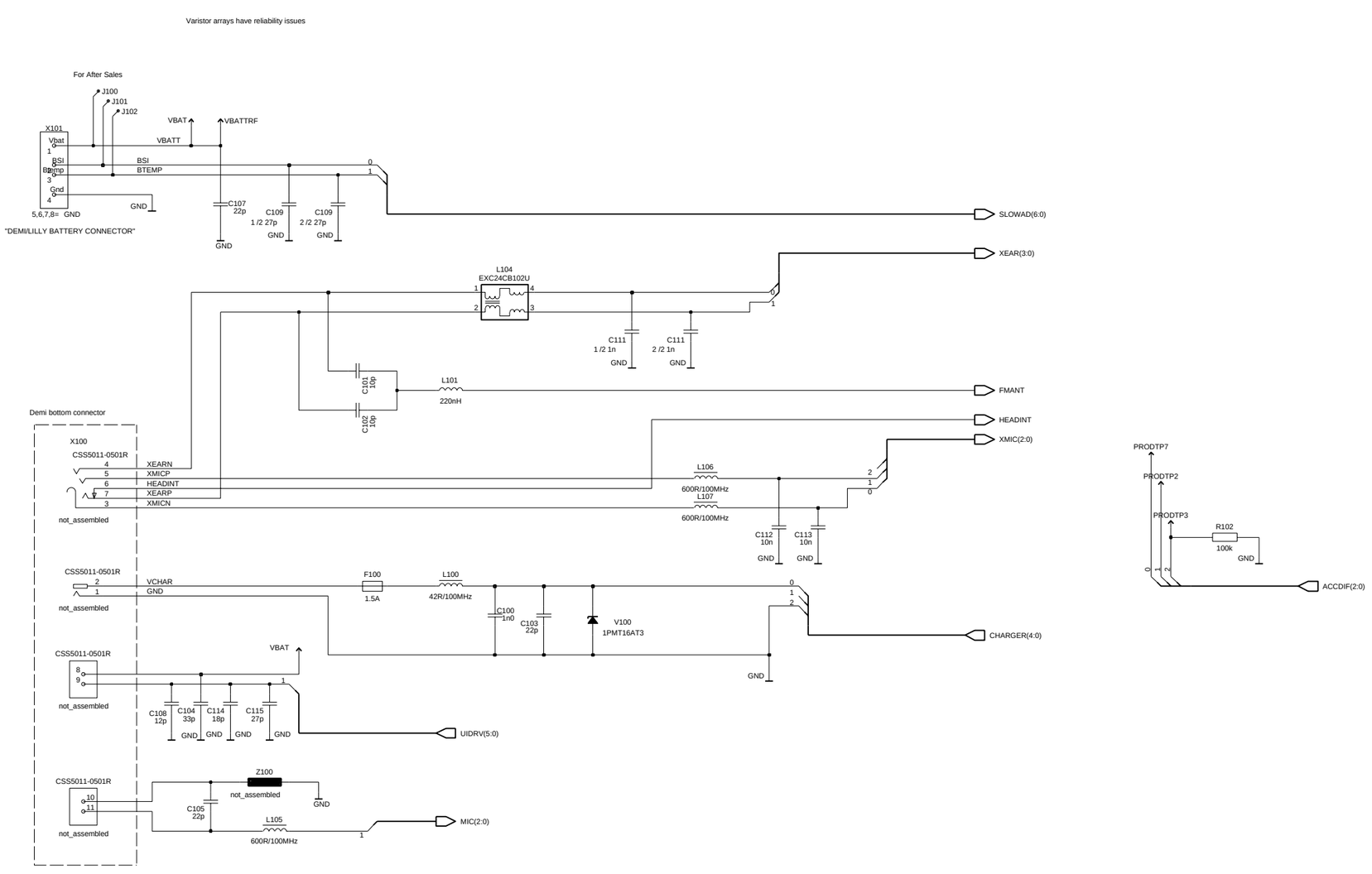
SIM Reader


"These are loceted as addition
to prod. test pattern"
J389
J386
J387
J388
SIMIF(3:0)
R388
EMIF03-SIM01
VSIM
2 SIMRST
1 SIMCLKO
0 SIMIODAO
A2
B1
C1
B2 GND
R1
R2
R3
C2
A3
B3
C3
GND
GENIO(52:0)
"BASIC" SIM READER
SIMCLK
SIMRST
VSIM
SIMDATA
VPP
GND
3
2
1
4
5
6
SF2W006S1E-E2000
X386
GND
SIM2MMCIF(3:0)
VSIM
C389
100n
GND

System Diagram



System Connectors



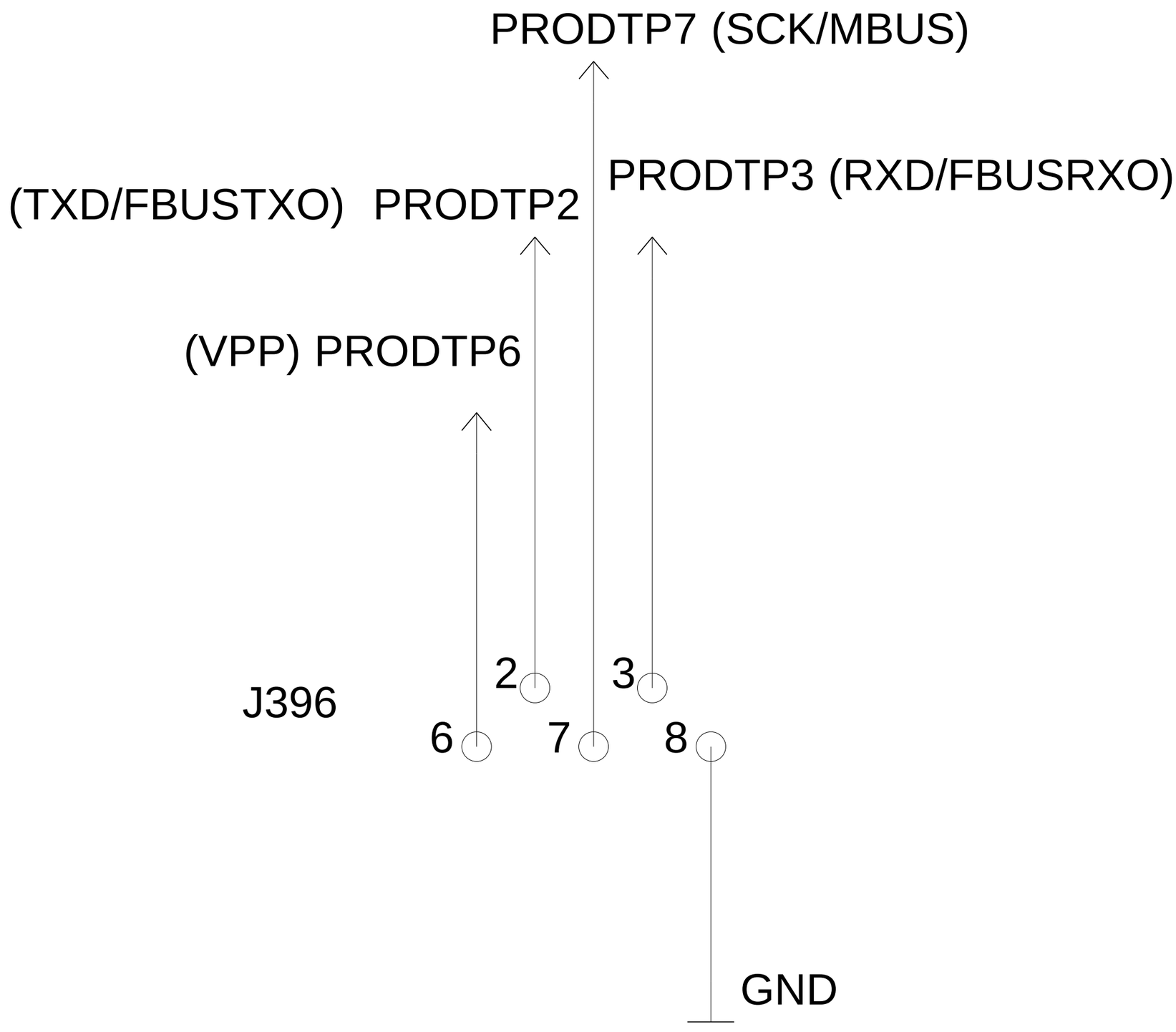
USED REFS:

R103,

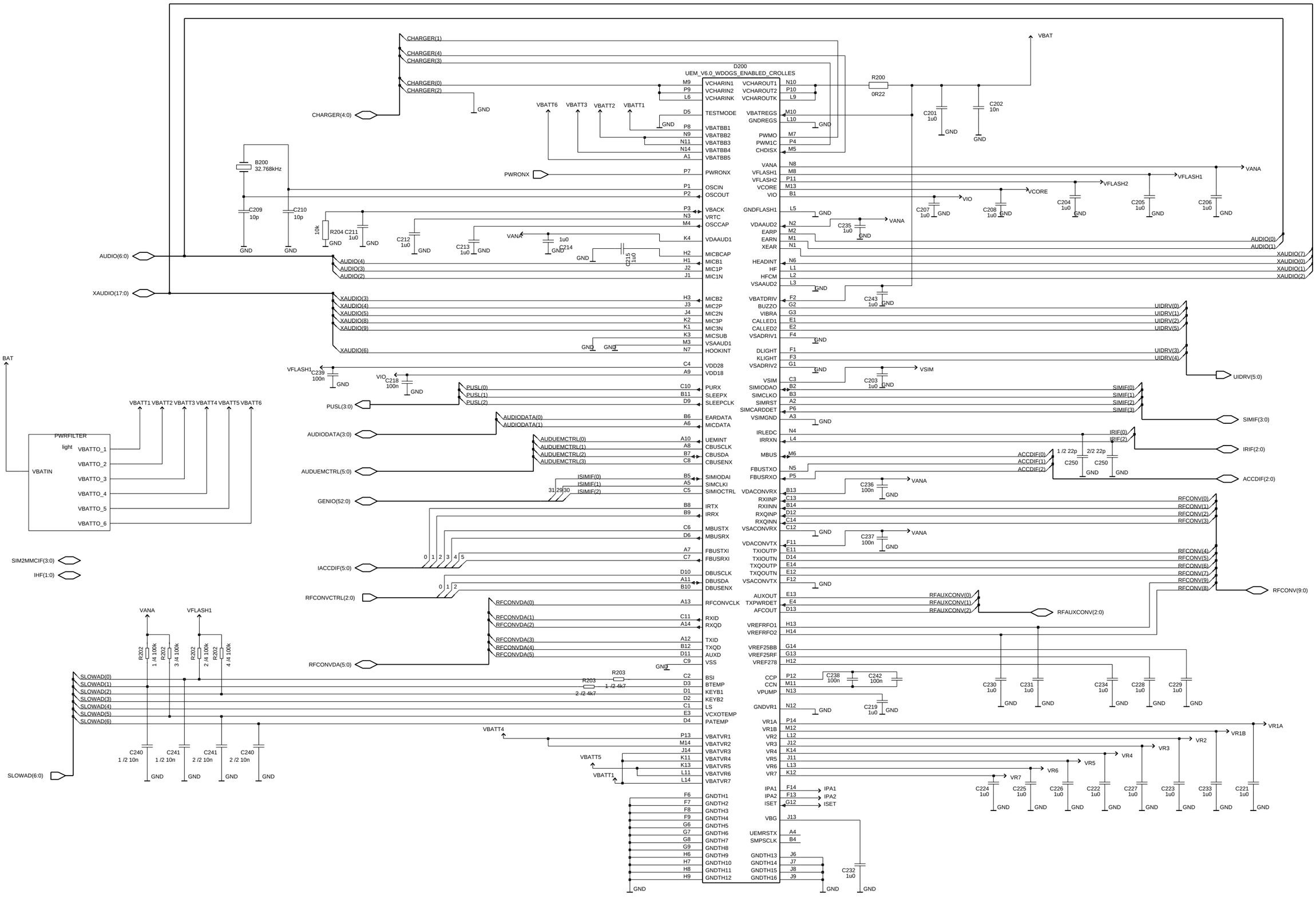
C100, 101, 102, 103, 104, 106, 108, 109

L101, 101, 102, 103, 104

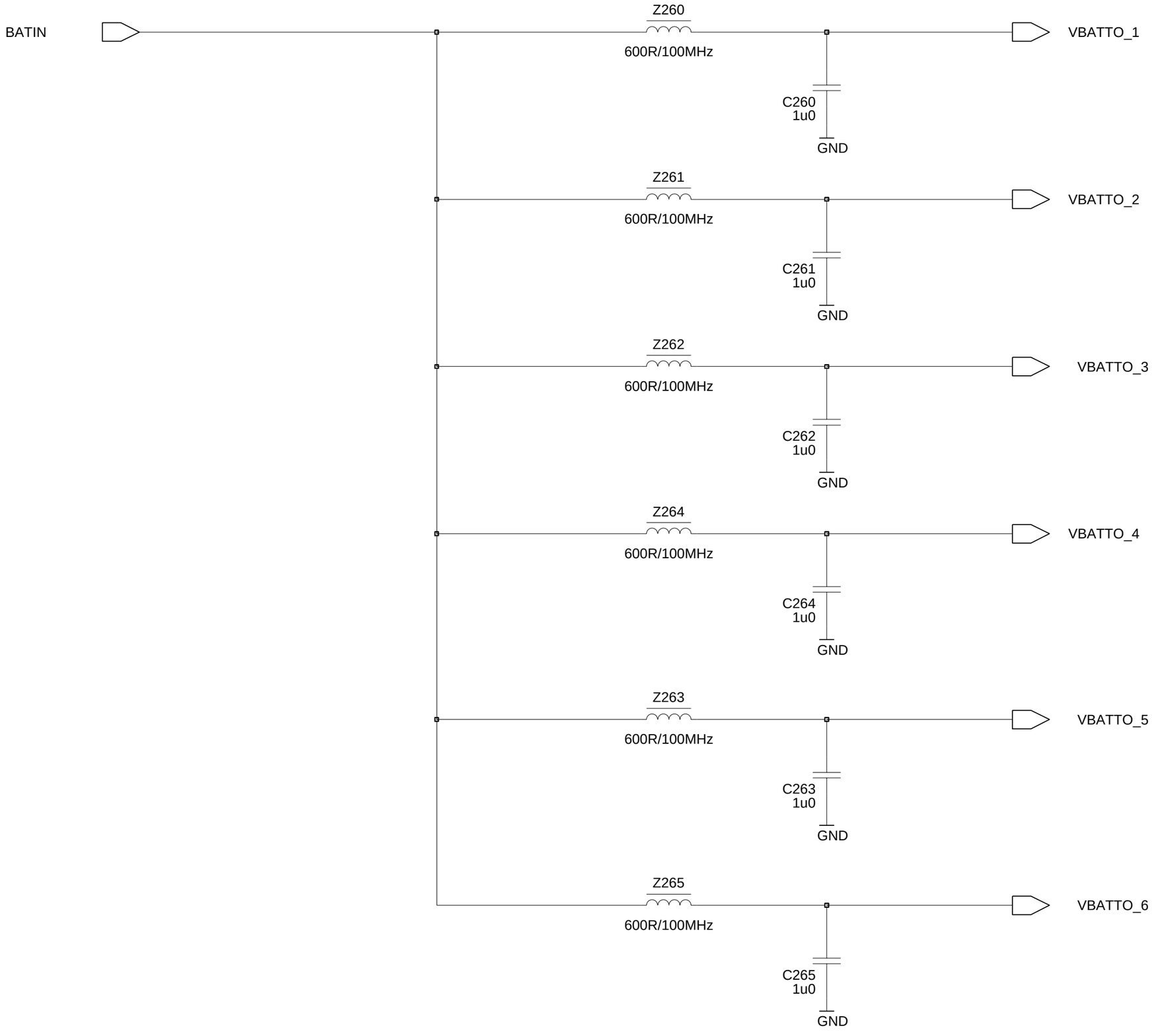
Production Test Patterns



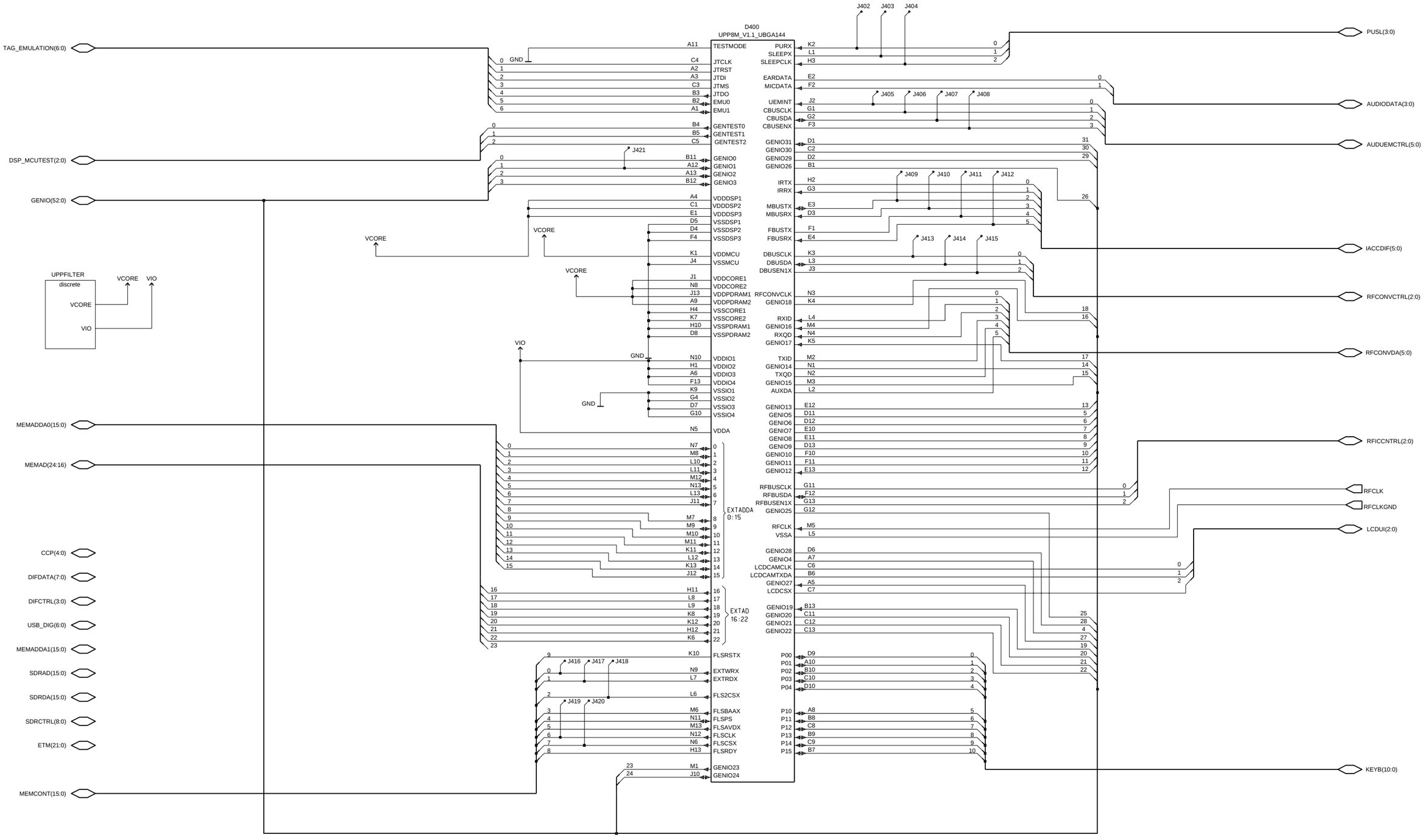
UEM


D200
UEM_V6.0_WDOGS_ENABLED_CROLLES
CHARGER(1)
CHARGER(4)
CHARGER(3)
CHARGER(0)
CHARGER(2)
CHARGER(4:0)
VBAT
R200
0R22
VCHARIN1
VCHARIN2
VCHARINK
VCHAROUT1
VCHAROUT2
VCHAROUTK
TESTMODE
VBATREGS
GNDREGS
VBATBB1
VBATBB2
VBATBB3
VBATBB4
VBATBB5
PWMO
PWM1C
CHDISX
VBATT6
VBATT3
VBATT2
VBATT1
PWRONX
B200
32.768kHz
C209
10p
C210
10p
OSCIN
OSCOUT
VBACK
VRTC
OSCCAP
VDAAUD1
MICBCAP
MICB1
MIC1P
MIC1N
MICB2
MIC2P
MIC2N
MIC3P
MIC3N
MICSUB
VSAAUD1
HOOKINT
VDD28
VDD18
PURX
SLEEPX
SLEEPCLK
EARDATA
MICDATA
UEMINT
CBUSCLK
CBUSDA
CBUSENX
SIMIODAI
SIMCLKI
SIMIOCTRL
IRTX
IRRX
MBUSTX
MBUSRX
FBUSTXI
FBUSRXI
DBUSCLK
DBUSDA
DBUSENX
RFCONVCLK
RXID
RXQD
TXID
TXQD
AUXD
VSS
BSI
BTEMP
KEYB1
KEYB2
LS
VCXOTEMP
PATEMP
VBATVR1
VBATVR2
VBATVR3
VBATVR4
VBATVR5
VBATVR6
VBATVR7
GNDTH1
GNDTH2
GNDTH3
GNDTH4
GNDTH5
GNDTH6
GNDTH7
GNDTH8
GNDTH9
GNDTH10
GNDTH11
GNDTH12
VANA
VFLASH1
VFLASH2
VCORE
VIO
GNDFLASH1
VDAAUD2
EARP
EARN
XEAR
HEADINT
HF
HFCM
VSAAUD2
VBATDRIV
BUZZO
VIBRA
CALLED1
CALLED2
VSADRIV1
DLIGHT
KLIGHT
VSADRIV2
VSIM
SIMIODAO
SIMCLKO
SIMRST
SIMCARDDET
VSIMGND
IRLEDC
IRRXN
MBUS
FBUSTXO
FBUSRXO
VDACONVRX
RXIINP
RXIINN
RXQINP
RXQINN
VSACONVRX
VDACONVTX
TXIOUTP
TXIOUTN
TXQOUTP
TXQOUTN
VSACONVTX
AUXOUT
TXPWRDET
AFCOUT
VREFRFO1
VREFRFO2
VREF25BB
VREF25RF
VREF278
CCP
CCN
VPUMP
GNDVR1
VR1A
VR1B
VR2
VR3
VR4
VR5
VR6
VR7
IPA1
IPA2
ISET
VBG
UEMRSTX
SMPSCLK
GNDTH13
GNDTH14
GNDTH15
GNDTH16
C201 1u0
C202 10n
C204 1u0
C205 1u0
C206 1u0
C207 1u0
C208 1u0
C235 1u0
C243 1u0
C203 1u0
C236 100n
C237 100n
C238 100n
C242 100n
C219 1u0
C232 1u0
C230 1u0
C231 1u0
C234 1u0
C228 1u0
C229 1u0
C224 1u0
C225 1u0
C226 1u0
C222 1u0
C227 1u0
C223 1u0
C233 1u0
C221 1u0
C250 1 /2 22p
C250 2/2 22p
AUDIO(6:0)
AUDIO(4)
AUDIO(3)
AUDIO(2)
AUDIO(0)
AUDIO(1)
XAUDIO(17:0)
XAUDIO(3)
XAUDIO(4)
XAUDIO(5)
XAUDIO(8)
XAUDIO(9)
XAUDIO(6)
XAUDIO(7)
XAUDIO(0)
XAUDIO(1)
XAUDIO(2)
UIDRV(0)
UIDRV(1)
UIDRV(2)
UIDRV(5)
UIDRV(3)
UIDRV(4)
UIDRV(5:0)
SIMIF(0)
SIMIF(1)
SIMIF(2)
SIMIF(3)
SIMIF(3:0)
IRIF(0)
IRIF(2)
IRIF(2:0)
ACCDIF(0)
ACCDIF(1)
ACCDIF(2)
ACCDIF(2:0)
RFCONV(0)
RFCONV(1)
RFCONV(2)
RFCONV(3)
RFCONV(4)
RFCONV(5)
RFCONV(6)
RFCONV(7)
RFCONV(9)
RFCONV(8)
RFCONV(9:0)
RFAUXCONV(0)
RFAUXCONV(1)
RFAUXCONV(2)
RFAUXCONV(2:0)
PUSL(0)
PUSL(1)
PUSL(2)
PUSL(3:0)
AUDIODATA(0)
AUDIODATA(1)
AUDIODATA(3:0)
AUDUEMCTRL(0)
AUDUEMCTRL(1)
AUDUEMCTRL(2)
AUDUEMCTRL(3)
AUDUEMCTRL(5:0)
ISIMIF(0)
ISIMIF(1)
ISIMIF(2)
GENIO(52:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(0)
RFCONVDA(1)
RFCONVDA(2)
RFCONVDA(3)
RFCONVDA(4)
RFCONVDA(5)
RFCONVDA(5:0)
SLOWAD(0)
SLOWAD(1)
SLOWAD(2)
SLOWAD(3)
SLOWAD(4)
SLOWAD(5)
SLOWAD(6)
SLOWAD(6:0)
VBATT4
VBATT5
VBATT1
IPA1
IPA2
ISET
UEMRSTX
SMPSCLK
BAT
PWRFILTER
light
VBATIN
VBATTO_1
VBATTO_2
VBATTO_3
VBATTO_4
VBATTO_5
VBATTO_6
VBATT1 VBATT2 VBATT3 VBATT4 VBATT5 VBATT6
SIM2MMCIF(3:0)
IHF(1:0)
R202 1 /4 100k
R202 3 /4 100k
R202 2 /4 100k
R202 4 /4 100k
R203 1 /2 4k7
R203 2 /2 4k7
C240 1 /2 10n
C241 1 /2 10n
C241 2 /2 10n
C240 2 /2 10n
C239 100n
C218 100n
C212 1u0
C213 1u0
C214 1u0
C215 1u0
R204 C211 1u0
10k
GND

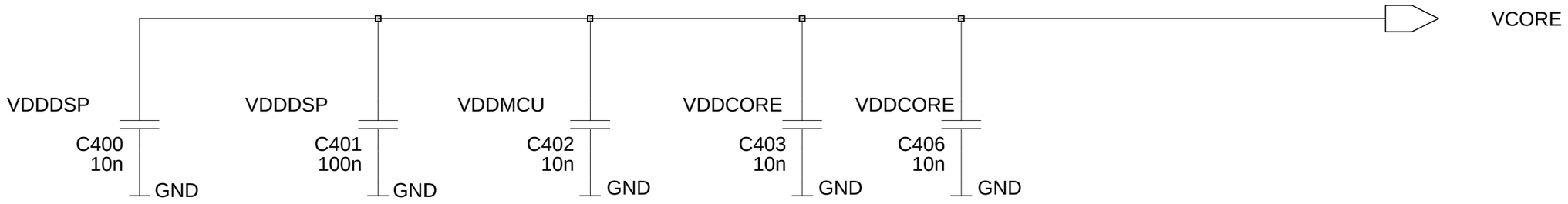
UEM Filter

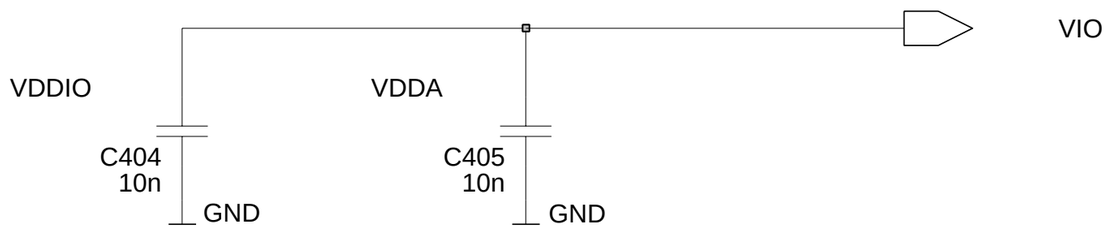

BATIN
Z260
600R/100MHz
C260
1u0
GND
VBATTO_1
Z261
600R/100MHz
C261
1u0
GND
VBATTO_2
Z262
600R/100MHz
C262
1u0
GND
VBATTO_3
Z264
600R/100MHz
C264
1u0
GND
VBATTO_4
Z263
600R/100MHz
C263
1u0
GND
VBATTO_5
Z265
600R/100MHz
C265
1u0
GND
VBATTO_6

UPP

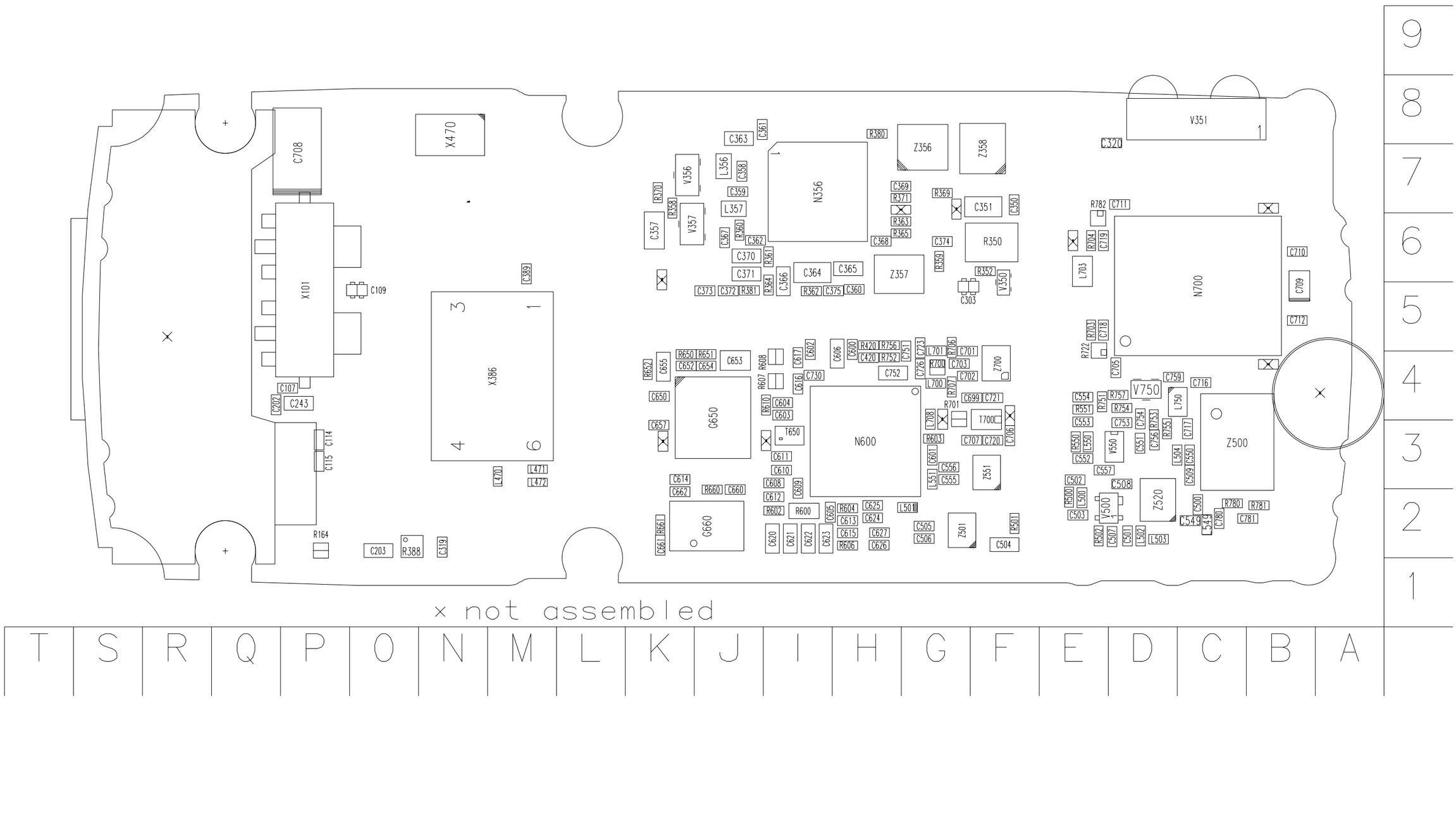

D400
UPP8M_V1.1_UBGA144
TAG_EMULATION(6:0)
DSP_MCUTEST(2:0)
GENIO(52:0)
MEMADDA0(15:0)
MEMAD(24:16)
CCP(4:0)
DIFDATA(7:0)
DIFCTRL(3:0)
USB_DIG(6:0)
MEMADDA1(15:0)
SDRAD(15:0)
SDRDA(15:0)
SDRCTRL(8:0)
ETM(21:0)
MEMCONT(15:0)
UPPFILTER
discrete
VCORE
VIO
GND
TESTMODE
JTCLK
JTRST
JTDI
JTMS
JTDO
EMU0
EMU1
GENTEST0
GENTEST1
GENTEST2
GENIO0
GENIO1
GENIO2
GENIO3
VDDDSP1
VDDDSP2
VDDDSP3
VSSDSP1
VSSDSP2
VSSDSP3
VDDMCU
VSSMCU
VDDCORE1
VDDCORE2
VDDPDRAM1
VDDPDRAM2
VSSCORE1
VSSCORE2
VSSPDRAM1
VSSPDRAM2
VDDIO1
VDDIO2
VDDIO3
VDDIO4
VSSIO1
VSSIO2
VSSIO3
VSSIO4
VDDA
EXTADDA 0:15
EXTAD 16:22
FLSRSTX
EXTWRX
EXTRDX
FLS2CSX
FLSBAAX
FLSPS
FLSAVDX
FLSCLK
FLSCSX
FLSRDY
GENIO23
GENIO24
PURX
SLEEPX
SLEEPCLK
EARDATA
MICDATA
UEMINT
CBUSCLK
CBUSDA
CBUSENX
GENIO31
GENIO30
GENIO29
GENIO26
IRTX
IRRX
MBUSTX
MBUSRX
FBUSTX
FBUSRX
DBUSCLK
DBUSDA
DBUSEN1X
RFCONVCLK
GENIO18
RXID
GENIO16
RXQD
GENIO17
TXID
GENIO14
TXQD
GENIO15
AUXDA
GENIO13
GENIO5
GENIO6
GENIO7
GENIO8
GENIO9
GENIO10
GENIO11
GENIO12
RFBUSCLK
RFBUSDA
RFBUSEN1X
GENIO25
RFCLK
VSSA
GENIO28
GENIO4
LCDCAMCLK
LCDCAMTXDA
GENIO27
LCDCSX
GENIO19
GENIO20
GENIO21
GENIO22
P00
P01
P02
P03
P04
P10
P11
P12
P13
P14
P15
J402
J403
J404
J405
J406
J407
J408
J409
J410
J411
J412
J413
J414
J415
J416
J417
J418
J419
J420
J421
PUSL(3:0)
AUDIODATA(3:0)
AUDUEMCTRL(5:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
RFICCNTRL(2:0)
RFCLK
RFCLKGND
LCDUI(2:0)
KEYB(10:0)

UPP Filter


VCORE
VDDDSP
C400
10n
GND
VDDDSP
C401
100n
GND
VDDMCU
C402
10n
GND
VDDCORE
C403
10n
GND
VDDCORE
C406
10n
GND

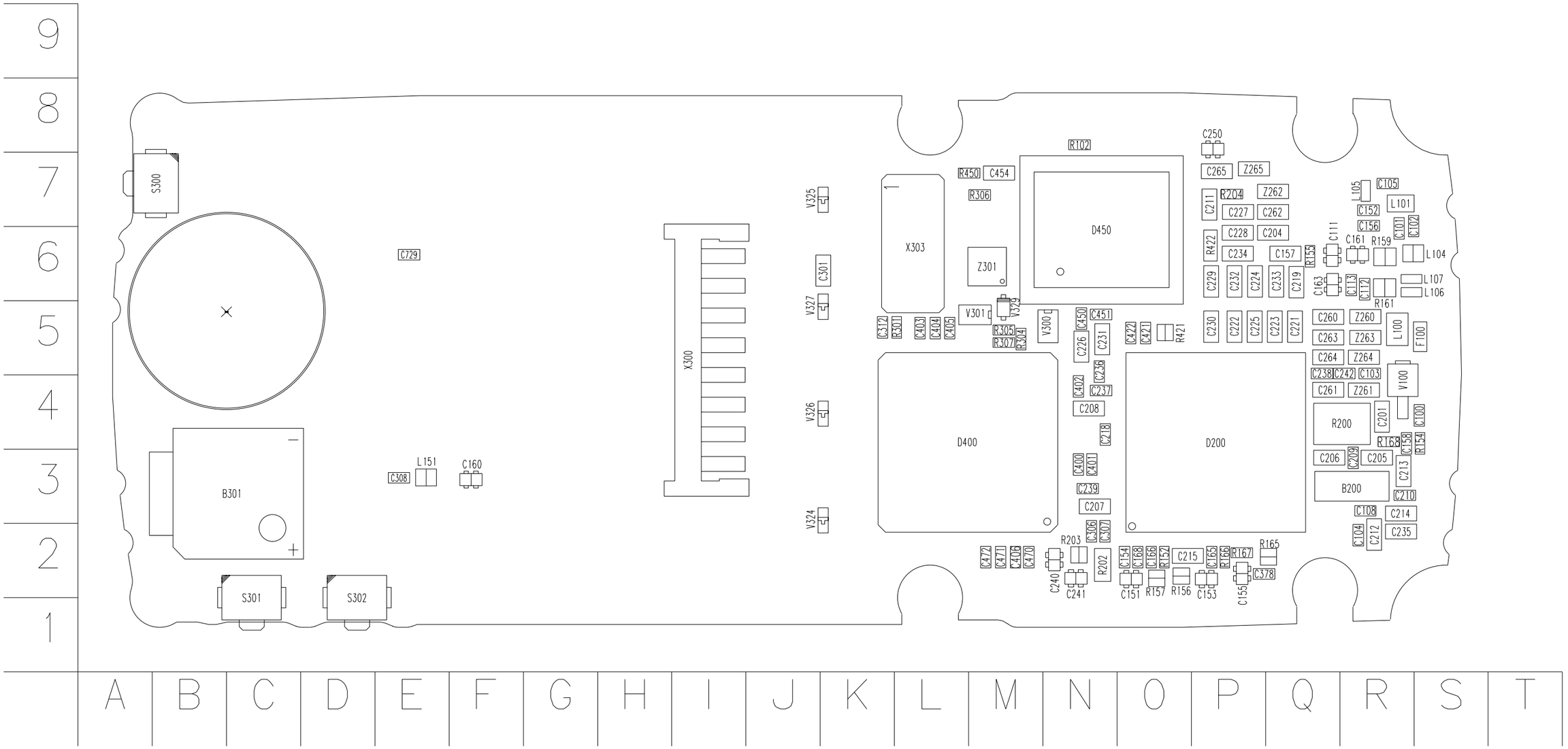

VIO
VDDIO
C404
10n
GND
VDDA
C405
10n
GND

Assembly Values Diagram Bottom

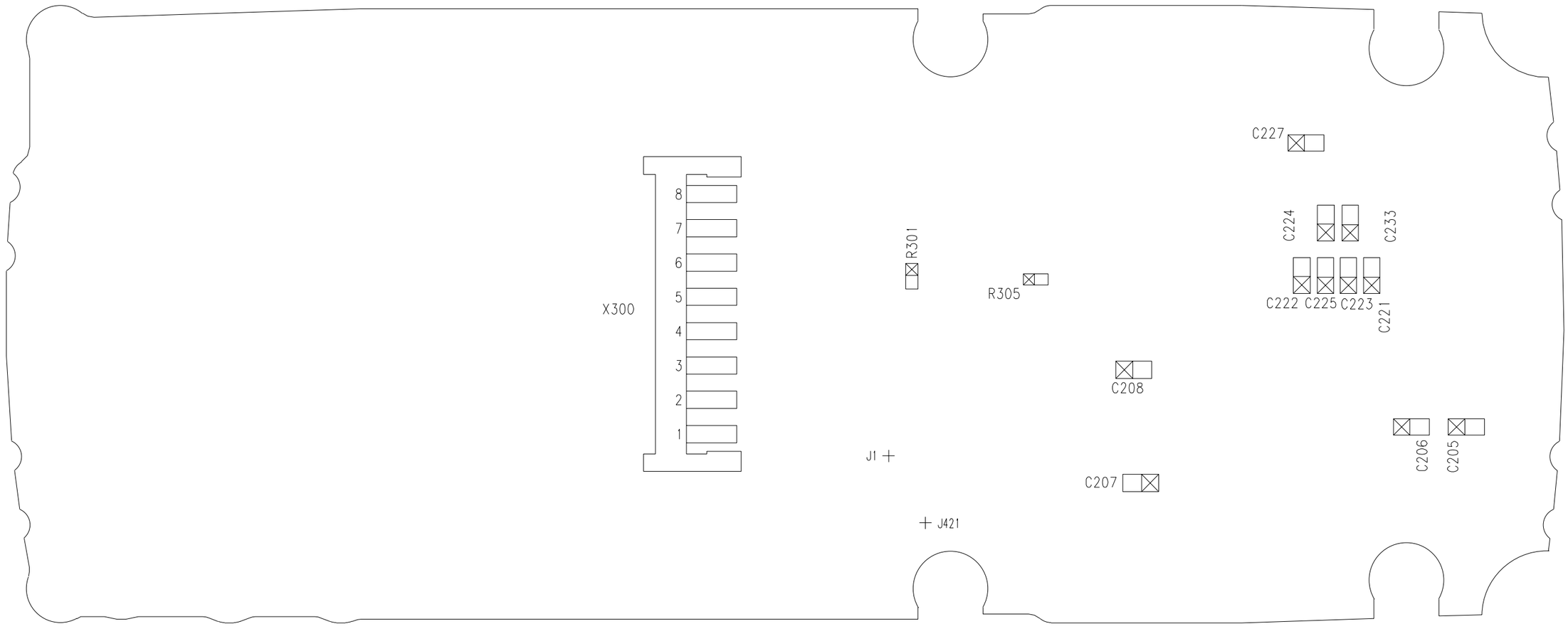


× not assembled

Assembly Values Diagram Top



Top Test Points



Bottom Test Points